TriService Nursing Research Program Final Report Cover Page

Sponsoring Institutio	n	TriService Nursing Research Program	
University of Miam	i		
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CPSP as a Mediator Among Military F	or Resiliency and Coping Tealthcare		
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Applicant Organizati	on University of Miami (FL)		
Address of Applicant 5030 Brunson Drive	organization c, Coral Gables, FL 33146		
Principal Investigat	or (PI) Military Contact Infor	nation	
Duty Title	PhD Student, University of M	liami (FL)	
E-mail Address	chris.weidlich@us.army.mil		
Signatures			
Signatures			
PI Signature		Date	
Mentor Signature		Date	

Report Documentation Page

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14. ABSTRACT

Purpose: To update what is currently known about the resiliency, coping, and compassion fatigue of Army and Civilian Nurses, LPNs, and Medics who treat wounded Soldiers and whether these factors can be improved over a sustained period of time. Design: The study was a longitudinal, correlational, cohort, pilot study formulated to examine the impact of CPSP training on resiliency, coping and compassion fatigue over time (prior to CPSP training and 30-days post-training) in a population of Army and Civilian Nurses, LPNs, and Medics at Womack Army Medical Center (WAMC) at Fort Bragg, NC. Methods: A prospective cohort pilot study was implemented to investigate the long-term effects of resiliency training (CPSP) on Army and Civilian Nurses, LPNs, and Medics (n = 93) over two time points at Womack Army Medical Center. Sample: A convenience sample of 120 Army and Civilian Nurses, LPNs, and Medics attending CPSP training at WAMC between February 2013 and June 2013 was planned for the study. The sample size sought was 120, factoring in outliers (2%) and a 30% attrition rate, obtaining questionnaires from 81 participants. Analysis: T-tests and mixed ANOVAs were used to examine the results of the study and significance. Findings: CPSP training did not affect resiliency scores on the CD-RISC or coping scores as measured by the WCQ. CPSP was significant in reducing burnout as measured by the ProQOL questionnaire, leading to decreased compassion fatigue. Conclusions: Based on the results of this study, CPSP training was effective in reducing burnout, which leads to decreased compassion fatigue in a group of Army Nurses and Civilian, LPNs, and Medics. Implications for Military Nursing: The results of this study suggest CPSP is effective at reducing the level of burnout experienced by Army and Civilian Nurses, LPNs, and Medics. Coping skills and resiliency levels do not appear affected by CPSP training.

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Abstract

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Purpose: To update what is currently known about the resiliency, coping, and compassion fatigue of Army and Civilian Nurses, LPNs, and Medics who treat wounded Soldiers and whether these factors can be improved over a sustained period of time.

Design: The study was a longitudinal, correlational, cohort, pilot study formulated to examine the impact of CPSP training on resiliency, coping and compassion fatigue over time (prior to CPSP training and 30-days post-training) in a population of Army and Civilian Nurses, LPNs, and Medics at a major Army medical facility.

Methods: A prospective cohort pilot study was implemented to investigate the long-term effects of resiliency training (CPSP) on Army and Civilian Nurses, LPNs, and Medics (n = 93) over two time points at major Army medical facility.

Sample: A convenience sample of 120 Army and Civilian Nurses, LPNs, and Medics attending CPSP training at a major Army medical facility between February 2013 and June 2013 was planned for the study. The sample size sought was 120, factoring in outliers (2%) and a 30% attrition rate, obtaining questionnaires from 81 participants.

Analysis: T-tests and mixed ANOVAs were used to examine the results of the study and significance.

Findings: CPSP training did not affect resiliency scores on the CD-RISC or coping scores as measured by the WCQ. CPSP was significant in reducing burnout as measured by the ProQOL questionnaire, leading to decreased compassion fatigue. Conclusions: Based on the results of this study, CPSP training was effective in reducing burnout, which leads to decreased compassion fatigue in a group of Army Nurses and Civilian, LPNs, and Medics.

Implications for Military Nursing: The results of this study suggest CPSP is effective at reducing the level of burnout experienced by Army and Civilian Nurses, LPNs, and Medics. Coping skills and resiliency levels do not appear affected by CPSP training.

Other:

TSNRP Research Priorities that Study or Project Addresses

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Primary Priority Fit and ready force Force Health Protection: Deploy with and care for the warrior Care for all entrusted to our care Patient outcomes Quality and safety Nursing Competencies and Translate research into practice/evidence-based practice Practice: Clinical excellence ☐ Knowledge management Education and training Health policy Leadership, Ethics, and Recruitment and retention Mentoring: Preparing tomorrow's leaders ☐ Care of the caregiver Other: **Secondary Priority** Fit and ready force Force Health Protection: Deploy with and care for the warrior Care for all entrusted to our care Patient outcomes Quality and safety Nursing Competencies and Translate research into practice/evidence-based practice Practice: Clinical excellence ☐ Knowledge management Education and training Health policy Leadership, Ethics, and Recruitment and retention Mentoring: ☐ Preparing tomorrow's leaders Care of the caregiver

Progress Towards Achievement of Specific Aims of the Study or Project

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Findings related to each specific aim, research or study questions, and/or hypothesis:

Specific Aim 1

Examine the impact of the CPSP training on resiliency, coping, and compassion fatigue in a sample of Army and Civilian Nurses, LPNs, and Medics.

Hypothesis 1a

Resiliency will significantly increase as measured by the Connor-Davidson Resilience Scale (CD-RISC) from just prior to receiving CPSP training to 30-days post-CPSP training.

The results of this study suggest that CPSP training appears to have no effect on resiliency scores as measured using the CD-RISC scale over the 30-day timeframe. The mean CPSP score from pre-CPSP training (M = 74.46, SD = 12.47) and 30 days post-CPSP training (M = 74.54, SD = 17.93) did not significantly change in the study (n = 28). Mean CD-RISC scores for the participants are: civilian nurses (M = 76.86, SD = 12.02, n = 7), LPNs (M = 75.11, SD = 14.76, n = 9), Army Nurse Corps Officers (M = 74.00, SD = 31.18, n = 6) and Army medics (M = 71.5, SD = 14.90, n = 6).

The mean scores of the Nurses, Medics and LPNs on the CD-RISC in this study were consistent with the scores from other research studies that utilized a population of U.S. Military personnel. Pietrzak and colleagues (2009) utilized the CD-RISC to explore resiliency levels in a population of Iraq and Afghanistan war veterans (n = 272) and observed a Mean Score of 73.8 (SD = 16.1) which is consistent with the scores in this study. Additionally, the mean scores of the nurses, medics and LPNs on the CD-RISC in this study were consistent with the scores from other studies that contained a population of nurses. Gabriel, Diefendorff, and Erickson (2011) utilized the CD-RISC on a sample of 57 nurses to measure accomplishment satisfaction and affect and observed a Mean Score of 66.49 (SD = 13.42) which is consistent with the scores in this study.

Hypothesis 1b

Coping levels will significantly increase as measured by the Ways of Coping Questionnaire (WCQ) from just prior to receiving CPSP training to 30-days post-CPSP training.

The results of this study suggest that CPSP training appears to have a small effect on coping scores as measured using the WCQ scale over the 30-day timeframe. Of the 8 coping factor subscales measured by the WCQ of Confrontive Coping, Distancing, Self-Controlling, Seeking Social Support, Accepting Responsibility, Escape-Avoidance, Planful Problem Solving, and Positive Reappraisal, only the subscale of Positive Reappraisal showed a significant change from pre-CPSP training to 30-days post-CPSP training (p = .025). Positive Reappraisal is defined as an individual's ability to create positive meaning from a situation by focusing on one's own personal growth (Folkman & Lazarus, 2010, p. 8). Neuman and Fawcett (2011) detail a phenomenon similar to positive appraisal as secondary prevention, where an individual protects himself or herself by strengthening their internal lines of resistance (p. 27).

The Positive Reappraisal score in this study demonstrated a statistically significant decrease from prior to receiving CPSP (M = 10.21, SD = 5.69) to 30-days post CPSP training (M = 8.18, SD = 5.05, p = 0.025). A decrease in WCQ scores may indicate that the participants (n = 28) had a

decrease in stressful events during this timeframe as the instructions on the WCQ inform individuals to think of a stressful event over the previous week. It could also mean that an individual utilized a different method of coping.

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Dirkzwager, Bramsen, and van der Ploeg (2003) utilized the WCQ to investigate PTSD in a group of Dutch Peacekeepers (n = 499) over time, which produced WCQ scores that are similar with this study with results including Positive Reappraisal mean scores of 11.36 (SD= 3.46). Additionally, Chang and colleagues (2007) explored cultural differences in how nurses (n = 225) cope with adversity utilizing the WCQ in New Zealand and Australia. The results produced similar scores to this study with New South Wales nurses reporting a Positive Reappraisal Mean of 8.55 (SD = 3.68) and New Zealand nurses reporting a mean of 9.02 (SD = 3.74) which produced similar mean scores to this study.

Hypothesis 1c

Compassion fatigue as measured by Professional Quality of Life (ProQOL) scale will decrease from just prior to receiving CPSP training to 30-Days post CPSP training.

The results of this study suggest that CPSP training has a positive effect on the ProQOL burnout subscale which decreased from pre-CPSP (M = 28.71 SD = 4.09) to (M = 19.79, SD = 5.90) 30-days post CPSP training (F (1, 16) = 17.1, p < .001). Secondary traumatic stress scores (M = 19.25, SD=5.10) and the scores 30-days post CPSP training (M = 20.14, SD=5.55) were not statistically significant (t(27) = 1.32, p = .200). Compassion satisfaction scores from prior to CPSP (M = 39.64, SD=7.58) and the scores 30-days post CPSP training (M = 39.18, SD=9.25) were not found to be not statistically significant (t(27) = -51, p = .618).

According to Hudnall-Stamm and colleagues (2010), compassion fatigue is observed when there is an increase in burnout and secondary traumatic stress scores. The burnout scale is measured by a score of 22 or less having a low burnout level, between 23-41 as average burnout level, and a score of 42 or above as high burnout. By decreasing burnout in a population of Army nurses, LPNs, medics, including civilian and allied healthcare providers, a decrease in compassion fatigue may occur. The between-subjects effect of the burnout subscale did not show statistical significance between occupation, education level, or the interaction between burnout and jobs and education level.

Specific Aim 2

Explore the relationship among resiliency, coping, and compassion fatigue in a sample of Army Nurses, LPNs, and Medics.

The researcher in this study explored the relationship between resiliency scores using the CD-RISC, coping methods using the WCQ, and compassion fatigue and satisfaction among Army and Civilian Nurses, LPN, and Medics and demographic information, such as highest level of education and occupation, yielded no statistically significant results. There was no relationship between MOS, level of education, and deployment history in the study regarding resiliency scores as measured by the CD-RISC. Prior CPSP training did not appear to affect the scores of the CD-RISC.

The researcher in this study explored the relationship between coping scores using the WCQ to explore coping methods among Army and Civilian Nurses, LPN, and Medics and demographic information, such as highest level of education and occupation, yielded no statistically significant results. There was no relationship between MOS, level of education, and deployment history within the healthcare providers in coping scores as measured by the WCQ.

Prior CPSP training did not appear to affect the scores of the WCQ. A majority of the nurses in the study utilized the coping factors of self-controlling and positive reappraisal. Self-controlling is defined by Folkman and Lazarus (2010) as "efforts to regulate one's feelings and actions" and positive reappraisal as, "efforts to create positive meaning by focusing on personal growth" (p. 8).

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ProQOL subscales among Army and Civilian Nurses, LPN, and Medics and demographic information, such as highest level of education and occupation, showed no statistically significant interaction between burnout and occupation or burnout and education level. The between-subjects effect of the burnout subscale did not show a statistical significance between occupation or education level. There was no statistical significance found in the interaction between burnout and jobs and education level.

Relationship of current findings to previous findings: The PI was unable to locate any previous studies that examined CPSP training over two time points.

Effect of problems or obstacles on the results: None

Limitations:

Based on the number of participants in this pilot study (n = 93) and the participants who returned questionnaires was small (n = 28), the biggest limitation of this study is the sample size. A larger sample of Army Nurses, LPNs and medics may yield different results. The study was conducted at a major Army medical facility over the spring of 2013 in a population of Army and Civilian Nurses, LPNs, and Medics. Because CPSP training occurs at various Army Medical Centers throughout the world, the results may not be generalizable civilian MTFs or to other installations due to instructors and instruction methods varying across locations. Due to sequestration and budget cuts within the Department of Defense, a hiring freeze was implemented during the data collection phase of this study. The hiring freeze led to small groups attending newcomer's orientation where a significant amount of data collection was to take place. Of the participants who volunteered for this study, several participants voiced concerns about potential furloughs being a concern to them. It is unclear how much of this stress contributed to individuals' scores on the CD-RISC, WCQ, or ProQOL. Future researchers could consider utilizing a mixed method study to gather the subjective feelings that the participants share.

Because CPSP is an annual requirement, many of the active duty Servicemembers at a major Army medical facility completed their CPSP training at the beginning of the Fiscal year (October 2012) and were not due to take CPSP training during the timeframe of this study. Because of this, much of the data collection occurred at outlying clinics. The outlying clinics contained a minimum staff of Active Duty Servicemembers, a significant portion of the participants were civilian who had not deployed to Iraq of Afghanistan. Based on the number of participants in this pilot study (n = 93) and the participants who returned questionnaires was small (n = 28), a larger sample of Army Nurses, LPNs and medics may yield different results. As additional surveys are returned, they will be added and presented in any future publications or dissemination of findings.

Conclusion

Based on the findings of this study, CPSP training decreases the burnout level in Army and Civilian Nurses, LPNs, and Medics, which may lead to a decrease in a healthcare provider's overall compassion fatigue. Resiliency and coping skills were not impacted by CPSP training utilizing the CD-RISC and WCQ in this study. Further researchers may want to consider ways to better define the term of resiliency, particularly compared to the interaction between coping skill development and compassion fatigue. It might be beneficial to recreate this study in a larger population of healthcare providers throughout the military at multiple installations to explore the concept of resiliency in greater numbers.

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Finally, exploring ways to improve CPSP training in order to make it more effective in training healthcare providers may be beneficial. Small groups where healthcare providers actively participate may be more effective than large groups receiving the information by PowerPoint. By continually reassessing CPSP effectiveness and conducting additional studies, the healthcare providers are receiving the best possible information and skills to improve resiliency and coping skills to handle complex situations that are an everyday part of military life.

Significance of Study or Project Results to Military Nursing

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Since this researcher focused on CPSP training at one military installation, the results may not be generalizable to other locations or services due to training methods of the particular individual conducting CPSP training. Regardless, the results of this study suggest CPSP is effective at reducing the level of burnout experienced by Army and Civilian Nurses, LPNs, and Medics. Coping skills and resiliency levels do not appear affected by CPSP training, it may be possible that coping skills and resiliency levels require a more active approach from individuals receiving the training. That is, for a person to change the way he or she copes in a certain situation, it may require that the people practice the coping techniques over an extended period of time. A repeat of this study with a larger sample size with multiple timeframes may be necessary.

Further military researchers may focus on expanding the scope of this study to several installations that provide CPSP training in order to determine if there is a difference in results due to individual teaching methods as well as the general effectiveness of the program within a larger population. Perhaps, conducting a mixed-method study as mentioned in the Neuman Systems Model to explore an individual attending CPSP training may yield greater input as to the effect the training may prove beneficial.

Additionally, CPSP training classes vary from a few individuals participating (4 or 5) up to over 100 military and civilian healthcare providers based on the venue requiring annual training. It may be that CPSP training is best presented in small group sizes with a focus on active participation to receive a better impact on the audience (Crosby, 1996). Since the researcher in this study recruited primarily Registered Nurses, Licensed Practical Nurses and Combat Medics, it may be beneficial that future research should focus on all Military Occupational Specialties (MOS) throughout the AMEDD to examine a broader population of military healthcare providers, including physicians and physician assistants.

Military leadership might be wise to remain proactive in improving the resiliency and coping levels in their Soldiers by commanders supporting CPSP training and ensure the Soldiers attend. It might be prudent for commands to continue to monitor Soldiers for the signs of burnout and fatigue. First line supervisors are key in discovering Soldiers who may be in need of additional support. The stigma that burnout and fatigue are a sign of weakness and requires mental healthcare still exists (Green-Shortridge, Britt, & Castro, 2007). It might be beneficial for leadership to continue to consider ways to dispel this stigma while promoting an environment where the command supports the emotional needs of the Soldier.

None as of this time.

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Type of Dissemination	Citation	Date and Source of Approval for Public Release
Poster Presentations	CPSP AS A MEDIATOR OF RESILIENCY AND COPING AMONG MILITARY HEALTHCARE PERSONNEL	Planned for the November 2013 AMSUS Conference

Reportable Outcomes

Reportable Outcome	Detailed Description
Applied for Patent	None
Issued a Patent	None
Developed a cell line	None
Developed a tissue or serum repository	None
Developed a data registry	None

Recruitment and Retention Table

Recruitment and Retention Aspect	Number
Subjects Projected in Grant Application	120
Subjects Available	
Subjects Contacted or Reached by Approved Recruitment Method	
Subjects Screened	97
Subjects Ineligible	
Subjects Refused	4
Human Subjects Consented	95
Subjects Who Withdrew	2
Subjects Who Completed Study	28
Subjects With Complete Data	28
Subjects with Incomplete Data	0

Retired Military, n (%)

Civilian, n (%)

Military Dependent, n (%)

Prior Military but not Retired, n (%)

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unknown

unknown

unknown

55 (58%)

Characteristic M = 41Age (yrs) Women, n (%) 67 (72%) Race 54 (58%) White, n (%) Black, n (%) 28 (30%) Hispanic or Latino, n (%) 5 (5%) Native Hawaiian or other Pacific Islander, n (%) 0(0%)3 (3%) Asian, n (%) Other, n (%) 2 (2%) Military Service or Civilian Air Force, n (%) 0(0%)Army, n (%) 38 (41%) 0(0%)Marine, n (%) 0 (0%) Navy, n (%) Civilian, n (%) 55 (58%) Service Component Active Duty, n (%) 38 (41%) Reserve, n (%) unknown unknown National Guard, n (%)

Final Budget Report